

c1494	32	1.0	1347	4	US-09-252-991A-4158	Sequence 4158, Ap
c1495	32	1.0	1416	4	US-09-955-732A-20	Sequence 20, Appl
c1496	32	1.0	1434	4	US-09-252-991A-8967	Sequence 8967, Ap
1497	32	1.0	1452	4	US-09-252-991A-3387	Sequence 3387, Ap
1498	32	1.0	1521	4	US-09-902-540-7920	Sequence 7920, Ap
1499	32	1.0	1545	4	US-09-252-991A-11637	Sequence 11637, A
c1500	32	1.0	1557	4	US-09-252-991A-7033	Sequence 7033, Ap

ALIGNMENTS

RESULT 1

US-09-578-063-17

; Sequence 17, Application US/09578063

; Patent No. 6764677

; GENERAL INFORMATION:

; APPLICANT: McCarthy, Sean A

; APPLICANT: Barnes, Thomas M

; APPLICANT: Fraser, Christopher C

; APPLICANT: Sharp, John D

; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,

; TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES

; FILE REFERENCE: 210147.0023/6U1

; CURRENT APPLICATION NUMBER: US/09/578,063

; CURRENT FILING DATE: 2000-05-24

; PRIOR APPLICATION NUMBER: US 09/333,159

; PRIOR FILING DATE: 1999-06-14

; NUMBER OF SEQ ID NOS: 79

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 17

; LENGTH: 3104

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-578-063-17

Query Match 96.7%; Score 3040.8; DB 4; Length 3104;

Best Local Similarity 99.9%; Pred. No. 0;

Matches 3053; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

Qy 89 CAGTCTGTGGCTGAGCATGGCCCTCCCAGCCCTGGGCCTGGACCCCTGGAGCCTCCTGGG 148

Db 16 CGGTCTGTGGCTGAGCATGGCCCTCCCAGCCCTGGGCCTGGACCCCTGGAGCCTCCTGGG 75

Qy 149 CCTTTTCCTCTTCCAACCTGCTTCAGCTGCTGCTGCCGACGACGACCGCGGGGGGAGGCGG 208

Db 76 CCTTTTCCTCTTCCAACCTGCTTCAGCTGCTGCTGCCGACGACGACCGCGGGGGGAGGCGG 135

Qy 209 GCAGGGGCCCCATGCCAGGGTCAGATACTATGCAGGGGATGAACGTAGGGCACTTAGCTT 268

Db 136 GCAGGGGCCCCATGCCAGGGTCAGATACTATGCAGGGGATGAACGTAGGGCACTTAGCTT 195

Qy 269 CTTCCACCAGAAGGGCCTCCAGGATTTTGACACTCTGCTCCTGAGTGGTGATGGAATAC 328

Db 196 CTTCCACCAGAAGGGCCTCCAGGATTTTGACACTCTGCTCCTGAGTGGTGATGGAATAC 255

Qy 329 TCTCTACGTGGGGGCTCGAGAAGCCATTCTGGCCTTGGATATCCAGGATCCAGGGGTCCC 388

Db	256		TCTCTACGTGGGGGCTCGAGAAGCCATTCTGGCCTTGGATATCCAGGATCCAGGGGTCCC	315
Qy	389		CAGGCTAAAGAACATGATACCGTGGCCAGCCAGTGACAGAAAAAGAGTGAATGTGCCTT	448
Db	316		CAGGCTAAAGAACATGATACCGTGGCCAGCCAGTGACAGAAAAAGAGTGAATGTGCCTT	375
Qy	449		TAAGAAGAAGAGCAATGAGACACAGTGTTCACCTTCATCCGTGTCCTGGTTTCTTACAA	508
Db	376		TAAGAAGAAGAGCAATGAGACACAGTGTTCACCTTCATCCGTGTCCTGGTTTCTTACAA	435
Qy	509		TGTCACCCATCTCTACACCTGCGGCACCTTCGCCTTCAGCCCTGCTTGTACCTTCATTGA	568
Db	436		TGTCACCCATCTCTACACCTGCGGCACCTTCGCCTTCAGCCCTGCTTGTACCTTCATTGA	495
Qy	569		ACTTCAAGATTCTTACCTGTTGCCCATCTCGGAGGACAAGGTCATGGAGGGAAAAGGCCA	628
Db	496		ACTTCAAGATTCTTACCTGTTGCCCATCTCGGAGGACAAGGTCATGGAGGGAAAAGGCCA	555
Qy	629		AAGCCCTTTGACCCCGCTCACAAGCATACGGCTGTCTTGGTGGATGGGATGCTCTATTC	688
Db	556		AAGCCCTTTGACCCCGCTCACAAGCATACGGCTGTCTTGGTGGATGGGATGCTCTATTC	615
Qy	689		TGGTACTATGAACAACCTTCTGGGCAGTGAGCCCATCCTGATGCGCACACTGGGATCCCA	748
Db	616		TGGTACTATGAACAACCTTCTGGGCAGTGAGCCCATCCTGATGCGCACACTGGGATCCCA	675
Qy	749		GCCTGTCCTCAAGACCGACAACCTTCTCCGCTGGCTGCATCATGACGCCTCCTTTGTGGC	808
Db	676		GCCTGTCCTCAAGACCGACAACCTTCTCCGCTGGCTGCATCATGACGCCTCCTTTGTGGC	735
Qy	809		AGCCATCCCTTCGACCCAGGTCGTCTACTTCTTCTTCGAGGAGACAGCCAGCGAGTTTGA	868
Db	736		AGCCATCCCTTCGACCCAGGTCGTCTACTTCTTCTTCGAGGAGACAGCCAGCGAGTTTGA	795
Qy	869		CTTCTTTGAGAGGCTCCACACATCGCGGGTGGCTAGAGTCTGCAAGAATGACGTGGGCGG	928
Db	796		CTTCTTTGAGAGGCTCCACACATCGCGGGTGGCTAGAGTCTGCAAGAATGACGTGGGCGG	855
Qy	929		CGAAAAGCTGCTGCAGAAGAAGTGGACCACCTTCTGAAGGCCAGCTGCTCTGCACCCA	988
Db	856		CGAAAAGCTGCTGCAGAAGAAGTGGACCACCTTCTGAAGGCCAGCTGCTCTGCACCCA	915
Qy	989		GCCGGGGCAGCTGCCCTTCAACGTATCCGCCACGCGGTCTGCTCCCCGCCGATTCTCC	1048
Db	916		GCCGGGGCAGCTGCCCTTCAACGTATCCGCCACGCGGTCTGCTCCCCGCCGATTCTCC	975
Qy	1049		CACAGCTCCCCACATCTACGCAGTCTTCACCTCCCAGTGGCAGGTTGGCGGGACCAGGAG	1108
Db	976		CACAGCTCCCCACATCTACGCAGTCTTCACCTCCCAGTGGCAGGTTGGCGGGACCAGGAG	1035
Qy	1109		CTCTGCGGTTTGTGCCTTCTCTCTCTTGACATTGAACGTGTCTTTAAGGGGAAATACAA	1168
Db	1036		CTCTGCGGTTTGTGCCTTCTCTCTCTTGACATTGAACGTGTCTTTAAGGGGAAATACAA	1095
Qy	1169		AGAGTTGAACAAAGAACTTCACGCTGGACTACTTATAGGGGCCCTGAGACCAACCCCCG	1228

Db	1096	AGAGTTGAACAAAGAACTTCACGCTGGACTACTTATAGGGGCCCTGAGACCAACCCCCG	1155
Qy	1229	GCCAGGCAGTTGCTCAGTGGGCCCCCTCCTCTGATAAGGCCCTGACCTTCATGAAGGACCA	1288
Db	1156	GCCAGGCAGTTGCTCAGTGGGCCCCCTCCTCTGATAAGGCCCTGACCTTCATGAAGGACCA	1215
Qy	1289	TTTCCTGATGGATGAGCAAGTGGTGGGGACGCCCCCTGCTGGTGAATCTGGCGTGGAGTA	1348
Db	1216	TTTCCTGATGGATGAGCAAGTGGTGGGGACGCCCCCTGCTGGTGAATCTGGCGTGGAGTA	1275
Qy	1349	TACACGGCTTGCACTGGAGACAGCCAGGGCCTTGATGGGCACAGCCATCTTGTCATGTA	1408
Db	1276	TACACGGCTTGCACTGGAGACAGCCAGGGCCTTGATGGGCACAGCCATCTTGTCATGTA	1335
Qy	1409	CCTGGGAACCAACACAGGGTCGCTCCACAAGGCTGTGGTAAGTGGGGACAGCAGTGCTCA	1468
Db	1336	CCTGGGAACCAACACAGGGTCGCTCCACAAGGCTGTGGTAAGTGGGGACAGCAGTGCTCA	1395
Qy	1469	TCTGGTGAAGAGATTGAGCTGTTCCCTGACCCTGAACCTGTTTCGCAACCTGCAGCTGGC	1528
Db	1396	TCTGGTGAAGAGATTGAGCTGTTCCCTGACCCTGAACCTGTTTCGCAACCTGCAGCTGGC	1455
Qy	1529	CCCCACCCAGGGTGCACTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGC	1588
Db	1456	CCCCACCCAGGGTGCACTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGC	1515
Qy	1589	CAACTGTAGTGTCTATGAGAGCTGTGTGGACTGTGTCCTTGCCCCGGGACCCCCACTGTGC	1648
Db	1516	CAACTGTAGTGTCTATGAGAGCTGTGTGGACTGTGTCCTTGCCCCGGGACCCCCACTGTGC	1575
Qy	1649	CTGGGACCCTGAGTCCCGAACCTGTTGCCTCCTGTCTGCCCCAACCTGAACTCCTGGAA	1708
Db	1576	CTGGGACCCTGAGTCCCGAACCTGTTGCCTCCTGTCTGCCCCAACCTGAACTCCTGGAA	1635
Qy	1709	GCAGGACATGGAGCGGGGGAACCCAGAGTGGGCATGTGCCAGTGGCCCCATGAGCAGGAG	1768
Db	1636	GCAGGACATGGAGCGGGGGAACCCAGAGTGGGCATGTGCCAGTGGCCCCATGAGCAGGAG	1695
Qy	1769	CCTTCGGCCTCAGAGCCGCGCGCAAATCATTAAGAAGTCCTGGCTGTCCCCAACTCCAT	1828
Db	1696	CCTTCGGCCTCAGAGCCGCGCGCAAATCATTAAGAAGTCCTGGCTGTCCCCAACTCCAT	1755
Qy	1829	CCTGGAGCTCCCCTGCCCCACCTGTGAGCCTTGGCCTCTTATTATTGGAGTCATGGCCC	1888
Db	1756	CCTGGAGCTCCCCTGCCCCACCTGTGAGCCTTGGCCTCTTATTATTGGAGTCATGGCCC	1815
Qy	1889	AGCAGCAGTCCCAGAAGCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTGCA	1948
Db	1816	AGCAGCAGTCCCAGAAGCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTGCA	1875
Qy	1949	GGATGGAGTTGGGGGTCTCTACCACTGCTGGGCAACTGAGAATGGCTTTTCATACCCTGT	2008
Db	1876	GGATGGAGTTGGGGGTCTCTACCACTGCTGGGCAACTGAGAATGGCTTTTCATACCCTGT	1935
Qy	2009	GATCTCCTACTGGGTGGACAGCCAGGACCAGACCCTGGCCCTGGATCCTGAACTGGCAGG	2068
Db	1936	GATCTCCTACTGGGTGGACAGCCAGGACCAGACCCTGGCCCTGGATCCTGAACTGGCAGG	1995

Qy	2069	CATCCCCCGGGAGCATGTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCCCTGGC	2128
Db	1996	CATCCCCCGGGAGCATGTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCCCTGGC	2055
Qy	2129	TGCCCAGCAGTCCTACTGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCT	2188
Db	2056	TGCCCAGCAGTCCTACTGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCT	2115
Qy	2189	TTCAGGAGCCCTCATCATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAA	2248
Db	2116	TTCAGGAGCCCTCATCATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAA	2175
Qy	2249	GGTTCAGGGCTGTGAGACCCTGCGCCCTGGGGAGAAGGCCCCGTTAAGCAGAGAGCAACA	2308
Db	2176	GGTTCAGGGCTGTGAGACCCTGCGCCCTGGGGAGAAGGCCCCGTTAAGCAGAGAGCAACA	2235
Qy	2309	CCTCCAGTCTCCCAAGGAATGCAGGACCTCTGCCAGTGATGTGGACGCTGACAACAACTG	2368
Db	2236	CCTCCAGTCTCCCAAGGAATGCAGGACCTCTGCCAGTGATGTGGACGCTGACAACAACTG	2295
Qy	2369	CCTAGGCACTGAGGTAGCTTAAACTCTAGGCACAGGCCGGGGCTGCGGTGCAGGCACCTG	2428
Db	2296	CCTAGGCACTGAGGTAGCTTAAACTCTAGGCACAGGCCGGGGCTGCGGTGCAGGCACCTG	2355
Qy	2429	GCCATGCTGGCTGGGCGGCCCAAGCACAGCCCTGACTAGGATGACAGCAGCACAAAAGAC	2488
Db	2356	GCCATGCTGGCTGGGCGGCCCAAGCACAGCCCTGACTAGGATGACAGCAGCACAAAAGAC	2415
Qy	2489	CACCTTTCTCCCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGG	2548
Db	2416	CACCTTTCTCCCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGG	2475
Qy	2549	TGATGCACAGCAGTCTGCCTCCCCTATGGGACTCCCTTCTACCAAGCACATGAGCTCTCT	2608
Db	2476	TGATGCACAGCAGTCTGCCTCCCCTATGGGACTCCCTTCTACCAAGCACATGAGCTCTCT	2535
Qy	2609	AACAGGGTGGGGGCTACCCCCAGACCTGCTCCTACACTGATATTGAAGAACCTGGAGAGG	2668
Db	2536	AACAGGGTGGGGGCTACCCCCAGACCTGCTCCTACACTGATATTGAAGAACCTGGAGAGG	2595
Qy	2669	ATCCTTCAGTTCTGGCCATTCCAGGGACCCTCCAGAAACACAGTGTTTCAAGAGACCCT-	2727
Db	2596	ATCCTTCAGTTCTGGCCATTCCAGGGACCCTCCAGAAACACAGTGTTTCAAGAGATCCTA	2655
Qy	2728	AAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATCATA	2787
Db	2656	AAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATCATA	2715
Qy	2788	TGCTAACATGCCACTCCTGGAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTC	2847
Db	2716	TGCTAACATGCCACTCCTGGAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTC	2775
Qy	2848	CCTTCTCCCAGGGTCATGCAGGGATCTGCTCCCTCCTGCTTCCCTTACCAGTCGTGCACC	2907
Db	2776	CCTTCTCCCAGGGTCATGCAGGGATCTGCTCCCTCCTGCTTCCCTTACCAGTCGTGCACC	2835

Qy 2908 GCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACCACCTTCTTCTTGCTTCAGTTGGGG 2967
 |||
 Db 2836 GCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACCACCTTCTTCTTGCTTCAGTTGGGG 2895
 Qy 2968 CAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCTTCACTC 3027
 |||
 Db 2896 CAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCTTCACTC 2955
 Qy 3028 CTTTACCCTAGCTGACCCCTTCACCTCTCCCCCTCCCTTTTCCTTTGTTTTGGGATTGAG 3087
 |||
 Db 2956 CTTTACCCTAGCTGACCCCTTCACCTCTCCCCCTCCCTTTTCCTTTGTTTTGGGATTGAG 3015
 Qy 3088 AAAACTGCTTGTCAGAGACTGTTATTTTTTTATTAAAAATATAAGGCTTAAAAAAA 3143
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 Db 3016 AAAACTGCTTGTCAGAGACTGTTATTTTTTTATTAAAAATATAAGGCTTAAAAAAA 3071

RESULT 2

US-09-578-063-18

; Sequence 18, Application US/09578063

; Patent No. 6764677

; GENERAL INFORMATION:

; APPLICANT: McCarthy, Sean A

; APPLICANT: Barnes, Thomas M

; APPLICANT: Fraser, Christopher C

; APPLICANT: Sharp, John D

; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,

; TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES

; FILE REFERENCE: 210147.0023/6U1

; CURRENT APPLICATION NUMBER: US/09/578,063

; CURRENT FILING DATE: 2000-05-24

; PRIOR APPLICATION NUMBER: US 09/333,159

; PRIOR FILING DATE: 1999-06-14

; NUMBER OF SEQ ID NOS: 79

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 18

; LENGTH: 2283

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-578-063-18

Query Match 72.6%; Score 2283; DB 4; Length 2283;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 2283; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 105 ATGGCCCTCCCAGCCCTGGGCCTGGACCCCTGGAGCCTCCTGGGCCTTTTCTCTTCCAA 164
 |||
 Db 1 ATGGCCCTCCCAGCCCTGGGCCTGGACCCCTGGAGCCTCCTGGGCCTTTTCTCTTCCAA 60
 Qy 165 CTGCTTCAGCTGCTGCTGCCGACGACGACCGCGGGGGAGGCGGGCAGGGGCCCATGCCC 224
 |||
 Db 61 CTGCTTCAGCTGCTGCTGCCGACGACGACCGCGGGGGAGGCGGGCAGGGGCCCATGCCC 120
 Qy 225 AGGGTCAGATACTATGCAGGGGATGAACGTAGGGCACTTAGCTTCTTCCACCAGAAGGGC 284
 |||
 Db 121 AGGGTCAGATACTATGCAGGGGATGAACGTAGGGCACTTAGCTTCTTCCACCAGAAGGGC 180

Qy	285	CTCCAGGATTTTGACACTCTGCTCCTGAGTGGTGATGGAAATACTCTCTACGTGGGGGGCT	344
Db	181	CTCCAGGATTTTGACACTCTGCTCCTGAGTGGTGATGGAAATACTCTCTACGTGGGGGGCT	240
Qy	345	CGAGAAGCCATTCTGGCCTTGGATATCCAGGATCCAGGGGTCCCAGGCTAAAGAACATG	404
Db	241	CGAGAAGCCATTCTGGCCTTGGATATCCAGGATCCAGGGGTCCCAGGCTAAAGAACATG	300
Qy	405	ATACCGTGGCCAGCCAGTGACAGAAAAAAGAGTGAATGTGCCTTTAAGAAGAAGAGCAAT	464
Db	301	ATACCGTGGCCAGCCAGTGACAGAAAAAAGAGTGAATGTGCCTTTAAGAAGAAGAGCAAT	360
Qy	465	GAGACACAGTGTTCAACTTCATCCGTGTCTGGTTTCTTACAATGTCACCCATCTCTAC	524
Db	361	GAGACACAGTGTTCAACTTCATCCGTGTCTGGTTTCTTACAATGTCACCCATCTCTAC	420
Qy	525	ACCTGCGGCACCTTCGCCTTCAGCCCTGCTTGTACCTTCATTGAACTTCAAGATTCCTAC	584
Db	421	ACCTGCGGCACCTTCGCCTTCAGCCCTGCTTGTACCTTCATTGAACTTCAAGATTCCTAC	480
Qy	585	CTGTTGCCCATCTCGGAGGACAAGGTCATGGAGGGAAAAGGCCAAAGCCCCTTTGACCCC	644
Db	481	CTGTTGCCCATCTCGGAGGACAAGGTCATGGAGGGAAAAGGCCAAAGCCCCTTTGACCCC	540
Qy	645	GCTCACAAGCATACGGCTGTCTTGGTGGATGGGATGCTCTATTCTGGTACTATGAACAAC	704
Db	541	GCTCACAAGCATACGGCTGTCTTGGTGGATGGGATGCTCTATTCTGGTACTATGAACAAC	600
Qy	705	TTCTGGGCAGTGAGCCCATCTGATGCGCACACTGGGATCCCAGCCTGTCTCAAGACC	764
Db	601	TTCTGGGCAGTGAGCCCATCTGATGCGCACACTGGGATCCCAGCCTGTCTCAAGACC	660
Qy	765	GACAACTTCCTCCGCTGGCTGCATCATGACGCCTCCTTTGTGGCAGCCATCCCTTCGACC	824
Db	661	GACAACTTCCTCCGCTGGCTGCATCATGACGCCTCCTTTGTGGCAGCCATCCCTTCGACC	720
Qy	825	CAGGTCGTCTACTTCTTCTTCGAGGAGACAGCCAGCGAGTTTGACTTCTTTGAGAGGCTC	884
Db	721	CAGGTCGTCTACTTCTTCTTCGAGGAGACAGCCAGCGAGTTTGACTTCTTTGAGAGGCTC	780
Qy	885	CACACATCGCGGGTGGCTAGAGTCTGCAAGAATGACGTGGGCGGCGAAAAGCTGCTGCAG	944
Db	781	CACACATCGCGGGTGGCTAGAGTCTGCAAGAATGACGTGGGCGGCGAAAAGCTGCTGCAG	840
Qy	945	AAGAAGTGGACCACCTTCCTGAAGGCCAGCTGCTCTGCACCCAGCCGGGGCAGCTGCCC	1004
Db	841	AAGAAGTGGACCACCTTCCTGAAGGCCAGCTGCTCTGCACCCAGCCGGGGCAGCTGCCC	900
Qy	1005	TTCAACGTCATCCGCCACGCGGTCTGCTCCCCGCCGATTCTCCACAGCTCCCCACATC	1064
Db	901	TTCAACGTCATCCGCCACGCGGTCTGCTCCCCGCCGATTCTCCACAGCTCCCCACATC	960
Qy	1065	TACGCAGTCTTCACCTCCAGTGGCAGGTTGGCGGGACCAGGAGCTCTGCGGTTTGTGCC	1124
Db	961	TACGCAGTCTTCACCTCCAGTGGCAGGTTGGCGGGACCAGGAGCTCTGCGGTTTGTGCC	1020
Qy	1125	TTCTCTCTCTTGACATTGAACGTGTCTTTAAGGGGAAATACAAAGAGTTGAACAAAGAA	1184

Db	1021	 TTCTCTCTCTTGGACATTGAACGTGTCTTTAAGGGGAAATACAAAGAGTTGAACAAAGAA	1080
Qy	1185	ACTTCACGCTGGACTACTTATAGGGGCCCTGAGACCAACCCCGGCCAGGCAGTTGCTCA	1244
Db	1081	 ACTTCACGCTGGACTACTTATAGGGGCCCTGAGACCAACCCCGGCCAGGCAGTTGCTCA	1140
Qy	1245	GTGGGGCCCTCCTCTGATAAGGCCCTGACCTTCATGAAGGACCATTTCCTGATGGATGAG	1304
Db	1141	 GTGGGGCCCTCCTCTGATAAGGCCCTGACCTTCATGAAGGACCATTTCCTGATGGATGAG	1200
Qy	1305	CAAGTGGTGGGGACGCCCCCTGCTGGTGAAATCTGGCGTGGAGTATACACGGCTTGCACTG	1364
Db	1201	 CAAGTGGTGGGGACGCCCCCTGCTGGTGAAATCTGGCGTGGAGTATACACGGCTTGCACTG	1260
Qy	1365	GAGACAGCCCAGGGCCTTGATGGGCACAGCCATCTTGTATGTACCTGGGAACCACCACA	1424
Db	1261	 GAGACAGCCCAGGGCCTTGATGGGCACAGCCATCTTGTATGTACCTGGGAACCACCACA	1320
Qy	1425	GGGTCGCTCCACAAGGCTGTGGTAAAGTGGGGACAGCAGTGCTCATCTGGTGGAGAGATT	1484
Db	1321	 GGGTCGCTCCACAAGGCTGTGGTAAAGTGGGGACAGCAGTGCTCATCTGGTGGAGAGATT	1380
Qy	1485	CAGCTGTTCCCTGACCCTGAACCTGTTTCGCAACCTGCAGCTGGCCCCCAGGAGGTGCA	1544
Db	1381	 CAGCTGTTCCCTGACCCTGAACCTGTTTCGCAACCTGCAGCTGGCCCCCAGGAGGTGCA	1440
Qy	1545	GTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGCCAACTGTAGTGTCTAT	1604
Db	1441	 GTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGCCAACTGTAGTGTCTAT	1500
Qy	1605	GAGAGCTGTGTGGACTGTGTCTTGTCCCGGGACCCCCACTGTGCCTGGGACCCTGAGTCC	1664
Db	1501	 GAGAGCTGTGTGGACTGTGTCTTGTCCCGGGACCCCCACTGTGCCTGGGACCCTGAGTCC	1560
Qy	1665	CGAACCTGTTGCCTCCTGTCTGCCCCAACCTGAACTCCTGGAAGCAGGACATGGAGCGG	1724
Db	1561	 CGAACCTGTTGCCTCCTGTCTGCCCCAACCTGAACTCCTGGAAGCAGGACATGGAGCGG	1620
Qy	1725	GGGAACCCAGAGTGGGCATGTGCCAGTGGCCCCATGAGCAGGAGCCTTCGGCCTCAGAGC	1784
Db	1621	 GGGAACCCAGAGTGGGCATGTGCCAGTGGCCCCATGAGCAGGAGCCTTCGGCCTCAGAGC	1680
Qy	1785	CGCCCGCAAATCATTAAGAAGTCTGGCTGTCCCCAACTCCATCCTGGAGCTCCCCTGC	1844
Db	1681	 CGCCCGCAAATCATTAAGAAGTCTGGCTGTCCCCAACTCCATCCTGGAGCTCCCCTGC	1740
Qy	1845	CCCCACCTGTCAGCCTTGGCCTCTTATTATTGGAGTCATGGCCCAGCAGCAGTCCCAGAA	1904
Db	1741	 CCCCACCTGTCAGCCTTGGCCTCTTATTATTGGAGTCATGGCCCAGCAGCAGTCCCAGAA	1800
Qy	1905	GCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTCAGGATGGAGTTGGGGGT	1964
Db	1801	 GCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTCAGGATGGAGTTGGGGGT	1860
Qy	1965	CTCTACCAGTGCTGGGCAACTGAGAATGGCTTTTCATACCCTGTGATCTCCTACTGGGTG	2024

Db 1861 CTCTACCAGTGCTGGGCAACTGAGAATGGCTTTTCATACCCTGTGATCTCCTACTGGGTG 1920

Qy 2025 GACAGCCAGGACCAGACCCTGGCCCTGGATCCTGAACTGGCAGGCATCCCCGGGAGCAT 2084
 |||

Db 1921 GACAGCCAGGACCAGACCCTGGCCCTGGATCCTGAACTGGCAGGCATCCCCGGGAGCAT 1980

Qy 2085 GTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCCCTGGCTGCCCAGCAGTCCTAC 2144
 |||

Db 1981 GTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCCCTGGCTGCCCAGCAGTCCTAC 2040

Qy 2145 TGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCTTTCAGGAGCCCTCATC 2204
 |||

Db 2041 TGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCTTTCAGGAGCCCTCATC 2100

Qy 2205 ATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAAGGTTTCAGGGCTGTGAG 2264
 |||

Db 2101 ATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAAGGTTTCAGGGCTGTGAG 2160

Qy 2265 ACCCTGCGCCCTGGGGAGAAGGCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAG 2324
 |||

Db 2161 ACCCTGCGCCCTGGGGAGAAGGCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAG 2220

Qy 2325 GAATGCAGGACCTCTGCCAGTGATGTGGACGCTGACAACAACCTGCCTAGGCACTGAGGTA 2384
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Db 2221 GAATGCAGGACCTCTGCCAGTGATGTGGACGCTGACAACAACCTGCCTAGGCACTGAGGTA 2280

Qy 2385 GCT 2387
 |||

Db 2281 GCT 2283

RESULT 3

US-09-578-063-71

; Sequence 71, Application US/09578063

; Patent No. 6764677

; GENERAL INFORMATION:

; APPLICANT: McCarthy, Sean A

; APPLICANT: Barnes, Thomas M

; APPLICANT: Fraser, Christopher C

; APPLICANT: Sharp, John D

; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,

; TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES

; FILE REFERENCE: 210147.0023/6U1

; CURRENT APPLICATION NUMBER: US/09/578,063

; CURRENT FILING DATE: 2000-05-24

; PRIOR APPLICATION NUMBER: US 09/333,159

; PRIOR FILING DATE: 1999-06-14

; NUMBER OF SEQ ID NOS: 79

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 71

; LENGTH: 3046

; TYPE: DNA

; ORGANISM: Mus sp.

US-09-578-063-71

Query Match 55.0%; Score 1727.6; DB 4; Length 3046;
 Best Local Similarity 76.0%; Pred. No. 0;

1494	72.5	1.8	871	3	US-09-245-041-19	Sequence 19, Appl
1495	72.5	1.8	871	4	US-09-358-055B-19	Sequence 19, Appl
1496	72.5	1.8	871	4	US-09-893-238-19	Sequence 19, Appl
1497	72.5	1.8	974	4	US-10-101-464A-921	Sequence 921, App
1498	72.5	1.8	986	2	US-08-673-789-3	Sequence 3, Appli
1499	72.5	1.8	1012	1	US-08-219-262B-8	Sequence 8, Appli
1500	72.5	1.8	1012	3	US-09-031-655-8	Sequence 8, Appli

RESULT 1

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; Sequence 19, Application US/09578063
; Patent No. 6764677
; GENERAL INFORMATION:
; APPLICANT: McCarthy, Sean A
; APPLICANT: Barnes, Thomas M
; APPLICANT: Fraser, Christopher C
; APPLICANT: Sharp, John D
; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,
; TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES
; FILE REFERENCE: 210147.0023/6U1
; CURRENT APPLICATION NUMBER: US/09/578,063
; CURRENT FILING DATE: 2000-05-24
; PRIOR APPLICATION NUMBER: US 09/333,159
; PRIOR FILING DATE: 1999-06-14
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
; LENGTH: 761
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-578-063-19

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Qy	1	MALPALGLDPWSLLGLFLFQLLQLLLPTTTAGGGGQGPMRVRYYAGDERRALSFFHQKG	60
Db	1	MALPALGLDPWSLLGLFLFQLLQLLLPTTTAGGGGQGPMRVRYYAGDERRALSFFHQKG	60
Qy	61	LQDFDTLLLSGSGDNTLYVGAREAILALDIQDPGVPRLNMI PWPASDRKKSECAFKKSN	120
Db	61	LQDFDTLLLSGSGDNTLYVGAREAILALDIQDPGVPRLNMI PWPASDRKKSECAFKKSN	120
Qy	121	ETQCFNFIRVLVSYNVTHLYTCGTFAFSPACTFIELQDSYLLPISEDKVMEGKGQSPFDP	180
Db	121	ETQCFNFIRVLVSYNVTHLYTCGTFAFSPACTFIELQDSYLLPISEDKVMEGKGQSPFDP	180
Qy	181	AHKHTAVLVDGMLYSGTMNFLGSEPILMRTLGSQPVLKTDNFLRWLHHASFVAaipst	240
Db	181	AHKHTAVLVDGMLYSGTMNFLGSEPILMRTLGSQPVLKTDNFLRWLHHASFVAaipst	240
Qy	241	QVYFFFEETASEFDDFERLHTRSARVCKNDVGGEKLLQKKWTTFLKAQLLCTQPGQLP	300

Db	241		300
Qy	301	FN VIRHAVLLPADSPTAPIYAVFTSQWQVGGTRSSAVCAFSLLDIERVFKGKYKELNKE	360
Db	301		360
Qy	361	TSRWTTYRGPETNPRPGSCSVGPSSDKALTFMKDHFLMDEQVVGTPLLVKSGVEYTRLAV	420
Db	361		420
Qy	421	ETAQGLDGHSHLVMYLGTTTGS LHKAVVSGDSSAHLVEEIQLFPDPEPVRNLQLAPTQGA	480
Db	421		480
Qy	481	VFVGFSGGVWRVPRANCSVYESCVDCVLARDPHCAWD PESRTCCLLSAPNLSWKQDMER	540
Db	481		540
Qy	541	GNPEWACASGPMSRSLRPQSRPQIIKEVLAVPNSILELPCPHLSALASYWSHGPAAVPE	600
Db	541		600
Qy	601	ASSTVYNGSLLLIVQDGVGGLYQCWATENGFSYPVISYWVDSQDQTLALDPELAGIPREH	660
Db	601		660
Qy	661	VKVPLTRVSGGAALAAQSYWPHFVTVTVL FALVLSGALIILVASPLRALRARGKVQGCE	720
Db	661		720
Qy	721	TLRPGEKAPLSREQHLQSPKECRTSASDV DADNNCLGTEVA	761
Db	721		761

RESULT 2

US-09-578-063-21

; Sequence 21, Application US/09578063

; Patent No. 6764677

; GENERAL INFORMATION:

; APPLICANT: McCarthy, Sean A

; APPLICANT: Barnes, Thomas M

; APPLICANT: Fraser, Christopher C

; APPLICANT: Sharp, John D

; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING DIAGNOSTIC,

; TITLE OF INVENTION: PREVENTIVE, THERAPEUTIC, AND OTHER USES

; FILE REFERENCE: 210147.0023/6U1

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; NUMBER OF SEQ ID NOS: 79

; SOFTWARE: PatentIn Ver. 2.1

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; LENGTH: 730

; TYPE: PRT